



7th Grade Mathematics Curriculum Framework

	2007 Mathematics Curriculum Framework	I CAN Learn [®] Lesson Number	I CAN Learn [®] Lesson Title
NUMBER AND OPERATIONS			
1.a.	Use the order of operations to simplify and/or evaluate whole numbers (including exponents and grouping symbols). (DOK 1)	MPA-008	Order of Operations
1.b.	Solve problems involving addition, subtraction, multiplication, and division of rational numbers. Express answers in simplest form. (DOK 2)	MPA-002	Adding, Subtracting, Multiplying, and Dividing Whole Numbers
		MPA-053	Adding, Subtracting, Multiplying, and Dividing Integers
		MPA-018	Adding and Subtracting Decimals
		MPA-019	Multiplying Decimals
		MPA-020	Multiplying Decimals by Powers of Ten
		MPA-119	Dividing Decimals
		MPA-034	Adding and Subtracting Fractions
		MPA-035	Adding and Subtracting Mixed Numbers with Unlike Denominators
		MPA-036	Multiplying Fractions and Mixed Numbers and Simplifying
		MPA-037	Dividing Fractions and Mixed Numbers and Simplifying
1.c.	Convert among decimals, fractions, mixed numbers, and percents. (DOK 1)	MPA-081	Converting Fractions, Decimals, and Percents I
		MPA-082	Converting Fractions, Decimals, and Percents II
1.d.	Evaluate and estimate powers and square roots of real numbers. (DOK 2)	MPA-013	Using Powers and Exponents in Expressions
		MPA-064	Finding Square Roots of Perfect Squares
1.e.	Explain the relationship between standard form and scientific notation. (DOK 1)	MPA-021	Converting Between Standard and Scientific Notation
1.f.	Multiply and divide numbers written in scientific notation. (DOK 1)	HA1-235	Writing, Multiplying, and Dividing Numbers Written in Scientific Notation
1.g.	Solve real-life problems involving unit price, unit rate, sales price, sales tax, discount, simple interest, commission, and rates of commission. (DOK 1)	MPA-079	Unit rates
		MPA-126	Solving Real-World Problems Involving Sales Tax
		MPA-127	Solving Real-World Problems Involving Discounts
		MPA-128	Solving Real-World Problems Involving Simple Interest
1.h.	Solve contextual problems requiring the comparison, ordering, and application of integers. (DOK 2)	MPA-045	Modeling Integer Arithmetic Using Cups and Counters
		MPA-044	Finding Opposite and Absolute Values of Integers
		MPA-117	Modeling Integer Arithmetic Using Cups and Counters
1.i.	Develop a logical argument to demonstrate the ‘denseness’ of rational numbers. (DOK 3)	MPA-124	Classifying Numbers in the Real Number System
ALGEBRA			
2.a.	Recognize, describe, and state the rule of generalized numerical and geometric patterns using tables, graphs, words, and symbols. (DOK 2)	MPA-104	Recognizing Patterns
		MPA-270	Generating Algebraic Expressions from Patterns of Models
2.b.	Solve equations that represent algebraic and real-world problems using multiple methods including the real number properties. (DOK 1)	MPA-009	Solving One-Step Equations Using a Box

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		MPA-010	Solving One-Step Equations of Whole Numbers Using Addition and Subtraction
		MPA-011	Solving One-Step Equations of Whole Numbers Using Multiplication and Division
		MPA-012	Solving One-Step Equations of Whole Numbers Using All Operations
		MPA-042	Solving Problems Using an Equation
		MPA-054	Solving One-Step Equations with Integers Using all Four Operations
		MPA-040	Solving One-Step Equations with Decimals Using All Four Operations
		MPA-038	Solving One-Step Equations with Fractions Using Addition and Subtraction
		MPA-039	Solving One-Step Equations with Fractions Using Multiplication and Division
2.c.	Formulate algebraic expressions, equations, and inequalities to reflect a given situation and vice versa. (DOK 2)	MPA-125	Formulating a Possible Problem Situation Given an Equation
		HA1-104	Translating Word Statements into Equations
		HA1-105	Translating Word Statements into Inequalities
2.d.	Complete a function table based on a given rule and vice versa. (DOK 1)	MPA-102	Graphing Equations by Plotting Points
2.e.	Identify the following properties using variables and apply them in solving problems: (DOK 1)		
	• Zero property of multiplication	MPA-002	Adding, Subtracting, Multiplying, and Dividing Whole Numbers
	• Inverse properties of addition/subtraction and multiplication/division	MPA-010	Solving One-Step Equations of Whole Numbers Using Addition and Subtraction
		MPA-011	Solving One-Step Equations of Whole Numbers Using Multiplication and Division
		MPA-054	Solving One-Step Equations with Integers Using all Four Operations
		MPA-040	Solving One-Step Equations with Decimals Using All Four Operations
		MPA-038	Solving One-Step Equations with Fractions Using Addition and Subtraction
		MPA-039	Solving One-Step Equations with Fractions Using Multiplication and Division
	• Commutative and associative properties of addition and multiplication	MPA-002	Adding, Subtracting, Multiplying, and Dividing Whole Numbers
	• Identity properties of addition and multiplication	MPA-002	Adding, Subtracting, Multiplying, and Dividing Whole Numbers
	• Distributive properties of multiplication over addition and subtraction.	MPA-002	Adding, Subtracting, Multiplying, and Dividing Whole Numbers
		HA1-076	Basic Distributive Property
2.f.	Predict the shape of a graph from a function table. (DOK 2)	MPA-150	Identifying and Graphing Linear and Nonlinear Functions
GEOMETRY			
3.a.	Classify and compare three-dimensional shapes using their properties. (DOK 1)	MPA-076	Finding the Volume of Cylinders
		MPA-107	Constructing Three-Dimensional Figures and Examining Their Dimensions
3.b.	Construct two-dimensional representations of three-dimensional objects. (DOK 2)	MPA-106	Identifying a Solid Figure From a Net
3.c.	Justify the congruency or symmetry of two figures. (DOK 2)	MPA-108	Graphing Translations and Reflections on the Coordinate Plane
		MPA-121	Identifying Similar and Congruent Polygons Using Proportions
3.d.	Perform transformations (rigid and non-rigid motions) on two-dimensional figures using the coordinate plane. (DOK 2)	MPA-108	Graphing Translations and Reflections on the Coordinate Plane
		MPA-120	Applying Dilations in the Coordinate Plane
3.e.	Create an argument using the Pythagorean Theorem principles to show that a triangle is a right triangle. (DOK 2)	MPA-066	Solving Problems Using the Pythagorean Theorem
3.f.	Construct and classify angles. (DOK 2)	MPA-056	Classifying Angles
		MPA-057	Identifying and Applying Supplementary and Complementary Angles
MEASUREMENT			
4.a.	Convert from one unit to another, perform basic operations, and solve real-world problems using standard (English and metric) measurements within the same system. (DOK 2)	MPA-061	Converting Metric Units of Length, Capacity, and Mass
		MPA-062	Converting Units in Customary System
		MPA-063	Converting Units Between Metric and Customary System

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4.b.	Use formulas and strategies, such as decomposition, to compute the perimeter and area of triangles, parallelograms, trapezoids, the circumference and area of circles, and find the area of more complex shapes. (DOK 2)	MPA-055	Finding the Perimeter of a Figure
		MPA-067	Finding the Area of Rectangles and Parallelograms
		MPA-068	Finding the Area of Irregular Figures
		MPA-069	Finding the Area of Triangles and Trapezoids
		MPA-070	Finding the Circumference of a Circle
		MPA-071	Finding the Area of a Circle
4.c.	Develop and justify geometric formulas for volume and surface area of cylinders, pyramids, and prisms. (DOK 3)	MPA-073	Finding the Surface Area of Rectangular Prisms
		MPA-074	Finding the Surface Area of Cylinders
		MPA-075	Finding the Volume of Rectangular Prisms
		MPA-076	Finding the Volume of Cylinders
		MPA-115	Finding the Volumes of Prisms, Cylinders, Pyramids, and Cones Using Models
4.d.	Solve problems involving scale factors using ratios and proportions. (DOK 2)	MPA-110	Solving Problems Using Proportions, Scale Drawings, Models, and Maps
		MPA-111	Comparing Perimeters, Areas, and Volumes of Similar Geometric Figures and Solids
DATA ANALYSIS & PROBABILITY			
5.a.	Use proportions, estimates, and percentages to construct, interpret, and make predictions about a population based on histograms or circle graph representations of data from a sample. (DOK 2)	MPA-131	Interpreting and Creating Histograms
		MPA-092	Reading and Interpreting Bar, Line, and Circle Graphs
5.b.	Determine how outliers affect mean, median, mode, or range. (DOK 2)	MPA-095	Find the Mean, Median, and Mode
5.c.	Construct and interpret line graphs, frequency tables, circle graphs, box-and-whisker plots, and scatter plots to generalize trends from given data. (DOK 2)	MPA-129	Choosing Appropriate Scales and Intervals for Data
		MPA-092	Reading and Interpreting Bar, Line, and Circle Graphs
		MPA-097	Constructing Box-and-Whisker Plots
		MPA-132	Interpreting and Creating Scatterplots
		MPA-098	Making Predictions from Graphs and Choosing the Correct Graph
		MPA-099	Recognizing Misleading Statistics and Graphs
		MPA-840	Interpreting Data
5.d.	Determine probabilities through experimentation, simulation, or calculation. (Note: Make and test conjectures and predictions by calculating the probability of an event.) (DOK 2)	MPA-090	Finding the Probability of Simple Real-Life Events
		MPA-112	Constructing Sample Spaces for Compound Events (Dependent and Independent)
		MPA-113	Finding the Probability of Compound Events Through Experimentation
		MPA-114	Finding the Odds of Events and Experimental Probability from a Math Model

MM1-Fundamentals of Mathematics

MPA- Pre-Algebra

HA1-Algebra 1

Note: Standards were taken from the 2007 Mississippi Mathematics Framework Revised - Grade 7 document adopted by the Mississippi State Board of Education in 2007.